

August 2, 1948

Dr. Max Delbruck
c/o Biological Laboratory
Cold Spring Harbor
Long Island, New York

Dear Max,

Beale wrote me from Paris that you had suggested interpreting our results with antigens as an example of "flux equilibrium". He wrote me what he thought your idea was, but I am very anxious to get it straight from you because it really doesn't make sense to me in the form I got it. So anxious was I to get this information that I wrote to Horowitz asking him if he could set me straight, but he said that no one out at Cal Tech ever heard of this idea before, and now that you are back in the country, I would like very much to get it from you. I would also appreciate greatly if you would refer me to any facts in biology or chemistry which you believe provide some basis for this notion.

The main point which bothers me (again assuming that I got it straight from Beale) is how you account for the existence of one particular set of conditions under which all of the alternative equilibria can maintain themselves if once established by subjection to certain other conditions. I can, of course, understand readily how a given set of reactants can have different equilibria under different conditions, but I see no ground for assuming that these different equilibria will maintain themselves when all are put under the same set of conditions.

I am taking part in a symposium in Washington in September and will have to discuss my antigen results. I should like very much at that time to set forth your flux equilibrium idea, naturally attributing it to you, in order to set before the audience all the possible interpretations. Naturally I am anxious to do justice to your idea and feel I can only do this if you help me out by giving me the necessary information.

I hope you had a very pleasant and successful trip to Europe, and look forward to seeing you here perhaps in the near future.

With best regards,

Cordially yours,

T. M. Sonneborn

TMS:et

For Reference Use Only. This Material is covered by copyright and may not be quoted or reproduced without permission of copyright holder.

Sonneborn mss. II
Manuscripts Department, Lilly Library
Indiana University, Bloomington, Indiana